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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : **Confirmation No. 7254**
Hiroshi YAHATA et al. : Attorney Docket No. 2005_1603A
Serial No. 10/552,371 : Group Art Unit 2622
Filed October 7, 2005

INFORMATION RECORDING MEDIUM,
AND APPARATUS AND METHOD FOR
RECORDING INFORMATION TO
INFORMATION RECORDING MEDIUM

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
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ACCOUNT NO. 23-0975

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☒ each U.S. Patent and U.S. Patent application publication;
- ☐ each reference previously cited in the international application PCT/_____; and/or
- ☐ each reference previously cited in prior parent application Serial No. _____.

1a. ☒ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, **or**

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

and thus no certification and/or fee is required.

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

the certification of paragraph 2 below is provided, and

the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

2. It is hereby certified

- a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or
- b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

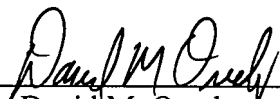
3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.
4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
 - b. ☐ a foreign patent office search report (in the English language) submitted herewith,
 - c. ☐ the concise explanation contained in the specification of the present application at page,
 - d. ☐ the concise explanation set forth in the attached English language abstract,
 - e. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
5. ☒ A foreign patent office search report and a U.S. Patent Office Action citing one or more of the references is enclosed.
6. ☐ Statement Under 37 CFR 1.704(d)

Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign Patent Office in a counterpart application, and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

Respectfully submitted,

Hiroshi YAHATA et al.

By



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INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

Date Submitted to PTO: June 7, 2007

ATTY DOCKET NO.
2005_1603ASERIAL NO.
10/552,371APPLICANT
Hiroshi YAHATA et al.FILING DATE
October 7, 2005GROUP
2622

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	6,014,368	1/2000	Sanami			
	AB	6,211,800	4/2001	Yanagihara et al.			
	AC	6,266,483	7/2001	Okada et al.			
	AD	6,567,409	5/2003	Tozaki et al.			
	AE	6,868,125	3/2005	Gendel			
	AF	2002/0064376	5/2002	Fukushima			
	AG	6,122,436	9/2000	Okada et al.			
	AH	6,594,442	7/2003	Kageyama et al.			
	AI	6,445,877	9/2002	Okada et al.			
	AJ	6,374,037	4/2002	Okada et al.			
	AK	2003/0133699	7/2003	ANDO et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AL	0 785 675	7/1997	EP			
	AM	1 209 922	5/2002	EP			corres to AF
	AN	0 949 825	10/1999	EP			corres to AG
	AO	0 965 991	12/1999	EP			corres to AH
	AP	1 003 337	5/2000	EP			corres to AI
	AQ	1 030 307	8/2000	EP			corres to AJ
	AR	1 087 402	3/2001	EP			
	AS	1 021 048	7/2000	EP			corres to AK

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,372	02/06/2006	Hiroshi Yahata	2005_1602A	7252

52349 7590 03/22/2007
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2033 K. STREET, NW
SUITE 800
WASHINGTON, DC 20006

EXAMINER

FINDLEY, CHRISTOPHER G

ART UNIT	PAPER NUMBER
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2621

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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WENDEROTH, LIND & PONACK

Office Action Summary

Application No.

10/552,372

Applicant(s)

YAHATA ET AL.

Examiner

Christopher Findley

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 2-6, 8-12 and 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 7, and 13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :10/07/2005, 2/06/2006, 3/28/2006, 10/24/2006.

DETAILED ACTION

1. It is noted that claims 2-6, 8-12, and 14-18 have been cancelled by the applicant via Preliminary Amendment on 2/06/2006.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1, 7, and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Independent claim 1 recites "a recording medium for storing system stream" and claims 7 and 13 recite "recording the system stream to a recording medium," which fails to meet the statutory requirement set forth in the Interim Guidelines, Annex IV (a). The video information has to be embodied in a computer-readable medium. Claims 1, 7, and 13 fail to recite this aspect. Claim 1 should read, "a computer readable medium for storing system stream." Claims 7 and 13 should read, "storing the system stream to a computer readable medium." For the purposes of prior art analysis, claims 1, 7, and 13 will be interpreted as relating to computer readable media containing video information.

ANNEX IV

***(a) Functional Descriptive Material: "Data Structures" Representing
Descriptive Material Per Se or Computer Programs Representing
Computer Listings Per Se***

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Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 1, 7, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohiro et al. (US 20030170008 A1) in view of Yasuda et al. (US 5949792 A).**

Re claim 1, Ohiro discloses a recording medium (paragraph [0050]) for storing system stream including video elementary stream generated by encoding video information and audio elementary stream generated by encoding audio information with the video elementary stream and the audio elementary stream being multiplexed (one of ordinary skill in the art at the time of the invention would have found it obvious that the

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broadcasting signals received by the analog broadcasting reception unit 101 and the digital broadcasting reception unit 104, in Fig. 1, would be comprised of both video and audio data multiplexed for broadcast transmission), and the system stream is allowed to have a first format (TS) and a second format (PS) (paragraph [0050]), the first format is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS) (paragraph [0050]).

Ohiro does not specifically disclose a presentation order of the video information including continuous complete data blocks starts at a top field and ends at a bottom field, the continuous complete data blocks are included in continuous reference presentation time for video information and audio information, and the continuous reference presentation time includes at least one data block. However, Yasuda discloses that each packet of video data contains a presentation time stamp (PTS) in the packet header (column 2, lines 30-37), which represents a time at which the data is displayed. This time stamp ensures that packets of sequential video data are displayed continuously. Furthermore, Yasuda discloses a top field first flag (column 7, lines 12-35), which enables the top field to be displayed first, and, consequently, the bottom field last.

Since Yasuda relates to MPEG 2 program and transport stream packets (column 2, line 61 through column 3, line 2), and Ohiro relates to switching between MPEG 2 program and transport stream formats for recording onto a computer readable medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine their teachings in order to maximize storage efficiency.

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Re claim 7, Ohiro discloses an information recording apparatus (paragraph [0008]) and recording the system stream to a recording medium, the system stream being allowed to have a first format (TS) and a second format (PS) (Fig. 1; paragraphs [0008], [0024], [0026], and [0050]), the information recording apparatus comprising::, wherein the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS) (paragraphs [0051] and [0057]).

Ohiro does not specifically state that the system is for encoding video information and audio information to system stream. However, Yasuda discloses an apparatus for encoding a digital signal (column 5, lines 17-19). Yasuda further discloses an encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format (TS) to generate video elementary stream and audio elementary stream (Figs. 2A and 2B; column 2, lines 61-67; column 5, lines 46-64). Furthermore, Yasuda discloses an encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS) (column 7, lines 12-30) and a control section operable to control the encoding section (column 5, lines 54-57; the scheduler controls the packetizing of the data stream). Finally, Yasuda also discloses a presentation order of the video information including continuous complete data block starts at a top field and ends at a bottom field, the continuous complete data blocks are included in continuous reference presentation time for video information and

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audio information, and the continuous reference presentation time includes at least one data block (column 7, lines 12-35).

Since Yasuda relates to MPEG 2 program and transport stream packets (column 2, line 61 through column 3, line 2), and Ohiro relates to switching between MPEG 2 program and transport stream formats for recording onto a computer readable medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine their teachings in order to maximize storage efficiency.

Re claim 13, Ohiro discloses an information recording method (paragraph [0023]) and recording the system stream to a recording medium (paragraph [0050]), the system stream being allowed to have a first format (TS) and a second format (PS) (paragraph [0050]), the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS) (Fig. 1; paragraph [0050]).

Ohiro does not specifically disclose encoding video information and audio information to system stream. However, Yasuda does disclose encoding video information and audio information to system stream (column 5, lines 17-19), wherein the method includes encoding video information and audio information in a predetermined encoding manner according to the first format (TS) to generate video elementary stream and audio elementary stream (column 7, lines 6-19) and performing system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS) (column 7, lines 12-19) and a presentation order of the video information including continuous complete data

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blocks starts at a top field and ends at a bottom field, the continuous complete data blocks are included in continuous reference presentation time for video information and audio information, and the continuous reference presentation time includes at least one data block (column 7, lines 12-35).

Since Yasuda relates to MPEG 2 program and transport stream packets (column 2, line 61 through column 3, line 2), and Ohiro relates to switching between MPEG 2 program and transport stream formats for recording onto a computer readable medium, one of ordinary skill in the art at the time of the invention would have found it obvious to combine their teachings in order to maximize storage efficiency.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a. Information recording medium, and apparatus and method for recording information on information recording medium

Yahata et al. (US 20040240856 A1)

b. Packet multiplexing system

Sanami (US 6014368 A)

c. Information recording medium, apparatus and method for recording or reproducing data thereof

Okada et al. (US 6266483 B1)

d. Method and apparatus for converting data streams

Morris (US 20010009548 A1)

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- e. Data decoding system and method, transfer device and method, and receiving device and method

Yanagihara et al. (US 6211800 B1)

- f. Data stream converting apparatus

Tozaki et al. (US 6567409 B1)

- g. Transport stream to program stream conversion

Gendel (US 6868125 B2)

Contact

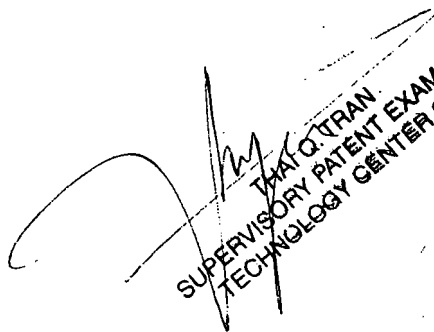
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Findley whose telephone number is (571) 270-1199. The examiner can normally be reached on Monday-Friday 7:30am-5pm, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Findley/


THAI Q. TRAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Notice of References Cited

Application/Control No.

10/552,372

Applicant(s)/Patent Under
Reexamination
YAHATA ET AL.

Examiner

Christopher Findley

Art Unit

2621

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-5,949,792 A	09-1999	Yasuda et al.	370/474
*	B	US-6,014,368 A	01-2000	Sanami, Jun	370/242
*	C	US-6,211,800 B1	04-2001	Yanagihara et al.	341/50
*	D	US-2001/0009548 A1	07-2001	Morris, Octavius J.	370/392
*	E	US-6,266,483 B1	07-2001	Okada et al.	386/128
*	F	US-6,567,409 B1	05-2003	Tozaki et al.	370/395.64
*	G	US-2003/0170008 A1	09-2003	Ohiro et al.	386/111
*	H	US-2004/0240856 A1	12-2004	Yahata et al.	386/098
*	I	US-6,868,125 B2	03-2005	Gendel, Gary Allen	375/240.26
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.